



[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2012-0863; Directorate Identifier 2012-NM-108-AD]

RIN 2120-AA64

Airworthiness Directives; The Boeing Company Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: We propose to adopt a new airworthiness directive (AD) for certain The Boeing Company Model 737-300, -400, -500, -600, -700, -700C, -800, -900, and -900ER series airplanes. This proposed AD was prompted by a review of the tail strobe light installation, which revealed that the tail strobe light is not electrically bonded to primary structure of the airplane. This proposed AD would require installing a new tail strobe light housing and a new disconnect bracket, and changing the wire bundles. We are proposing this AD, in case of a direct lightning strike to the tail strobe light, to prevent damage to the operation of other critical airplane systems due to electromagnetic coupling and large transient voltages, and damage to the control mechanisms or surfaces due to a fire, which could result in loss of control of the airplane.

DATES: We must receive comments on this proposed AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE Federal Register].

ADDRESSES: You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- Federal eRulemaking Portal: Go to <http://www.regulations.gov>. Follow the instructions for submitting comments.
- Fax: 202-493-2251.

- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.

- Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this proposed AD, contact Boeing Commercial Airplanes, Attention: Data & Services Management, P. O. Box 3707, MC 2H-65, Seattle, WA 98124-2207; telephone 206-544-5000, extension 1; fax 206-766-5680; Internet <https://www.myboeingfleet.com>. You may review copies of the referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, Washington 98057-3356. For information on the availability of this material at the FAA, call 425-227-1221.

Examining the AD Docket

You may examine the AD docket on the Internet at <http://www.regulations.gov>; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this proposed AD, the regulatory evaluation, any comments received, and other information. The street address for the Docket Office (phone: 800-647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

FOR FURTHER INFORMATION CONTACT: Marie Hogestad, Aerospace Engineer, Systems and Equipment Branch, FAA, ANM-130S, Seattle Aircraft Certification Office, 1601 Lind Avenue SW., Renton, Washington 98057-3356; phone: (425) 917-6418; fax: (425) 917-6590; e-mail: marie.hogestad@faa.gov.

SUPPLEMENTARY INFORMATION:

Comments Invited

We invite you to send any written relevant data, views, or arguments about this proposal. Send your comments to an address listed under the ADDRESSES section. Include “Docket No. FAA-2012-0863; Directorate Identifier 2012-NM-108-AD” at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this proposed AD. We will consider all comments received by the closing date and may amend this proposed AD because of those comments.

We will post all comments we receive, without change, to <http://www.regulations.gov>, including any personal information you provide. We will also post a report summarizing each substantive verbal contact we receive about this proposed AD.

Discussion

As a result of a review of the tail strobe light installation, located at the aft end of section 48, it was determined that the tail strobe light is not electrically bonded to primary structure of the airplane. In case of a direct lightning strike to the tail strobe light, electromagnetic coupling and large transient voltages can be transmitted into the pressure vessel and couple to wires of the airplane systems that are routed with the tail strobe light wires. The large transient voltages could cause damage to the operation of the airplane’s electrical systems, as well as flight control and avionics equipment. In addition to electromagnetic coupling, since the tail strobe light is located in a flammable leakage zone, electrical current on the tail strobe light system wiring could create an ignition source and potential fire, which could cause damage to the control mechanisms or surfaces. This condition, if not corrected, could result in loss of control of the airplane.

Relevant Service Information

We reviewed Boeing Special Attention Service Bulletin 737-33-1146, dated November 2, 2011 (for Model 737-600, -700, -700C, -800, -900, and -900ER series airplanes); and Boeing Special Attention Service Bulletin 737-33-1149, dated April 13, 2012 (for Model (for Model 737-300, -400, and -500 series airplanes). The service information describes procedures for installing a new tail strobe light housing, installing a new disconnect bracket, and changing the wire bundles.

Concurrent Service Information

Boeing Special Attention Service Bulletin 737-33-1149, dated April 13, 2012, also specifies the concurrent accomplishment of the following service bulletins:

- Boeing Service Bulletin 737-33-1076, dated September 22, 1988.
- Boeing Service Bulletin 737-33-1078, dated November 3, 1988.
- Boeing Service Bulletin 737-33-1111, dated August 29, 1996.

These service bulletins describe procedures for installing wingtips and tail strobe lights.

FAA's Determination

We are proposing this AD because we evaluated all the relevant information and determined the unsafe condition described previously is likely to exist or develop in other products of these same type designs.

Proposed AD Requirements

This proposed AD would require accomplishing the actions specified in the service information described previously.

Costs of Compliance

We estimate that this proposed AD affects 1,512 airplanes of U.S. registry.

We estimate the following costs to comply with this proposed AD:

Estimated costs

| Action | Labor cost | Parts cost | Cost per product | Cost on U.S. operators |
|---|---|----------------|------------------|------------------------|
| Installation for Model 737-300, -400, and -500 series airplanes (478 U.S. registered airplanes) | Up to 33 work-hours X \$85 per hour = Up to \$2,805 | Up to \$14,886 | Up to \$17,691 | Up to \$8,456,298 |
| Installation for Model 737-600, -700, -700C, -800, -900, and -900ER series airplanes, Group 1 (922 U.S. registered airplanes) | Up to 18 work-hours X \$85 per hour = Up to \$1,530 | Up to \$4,422 | Up to \$5,952 | Up to \$5,487,744 |
| Installation for Model 737-600, -700, -700C, -800, -900, and -900ER series airplanes, Group 2 (85 U.S. registered airplanes) | Up to 18 work-hours X \$85 per hour = Up to \$1,530 | Up to \$2,818 | Up to \$4,348 | Up to \$369,580 |
| Installation for Model 737-600, -700, -700C, -800, -900, and -900ER series airplanes, Group 3 (27 U.S. registered airplanes) | Up to 21 work-hours X \$85 per hour = Up to \$1,785 | Up to \$4,478 | Up to \$6,263 | Up to \$169,101 |

According to the manufacturer, all of the costs of this proposed AD may be covered under warranty, thereby reducing the cost impact on affected individuals. We do not control warranty coverage for affected individuals. As a result, we have included all costs in our cost estimate.

Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: “General requirements.” Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

We determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this proposed regulation:

- (1) Is not a “significant regulatory action” under Executive Order 12866,
- (2) Is not a “significant rule” under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979),
- (3) Will not affect intrastate aviation in Alaska, and
- (4) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):

The Boeing Company: Docket No. FAA-2012-0863; Directorate Identifier 2012-NM-108-AD.

(a) Comments Due Date

We must receive comments by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE Federal Register].

(b) Affected ADs

None.

(c) Applicability

This AD applies to The Boeing Company airplanes, certificated in any category, as identified in paragraphs (c)(1) and (c)(2) of this AD.

(1) Model 737-300, -400, and -500 series airplanes, as identified in Boeing Special Attention Service Bulletin 737-33-1149, dated April 13, 2012.

(2) Model 737-600, -700, -700C, -800, -900, and -900ER series airplanes, as identified in Boeing Special Attention Service Bulletin 737-33-1146, dated November 2, 2011.

(d) Subject

Joint Aircraft System Component (JASC)/Air Transport Association (ATA) of America Code 33, Lights.

(e) Unsafe Condition

This AD was prompted by a review of the tail strobe light installation, which revealed the tail strobe light is not electrically bonded to primary structure of the airplane. We are issuing this AD, in case of a direct lightning strike to the tail strobe light, to prevent damage to the operation of other critical airplane systems due to electromagnetic coupling and large transient voltages, and damage to the control mechanisms or surfaces due to a fire, which could result in loss of control of the airplane.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Installation

Within 72 months after the effective date of this AD, install a new tail strobe light housing, install a new disconnect bracket, and change the wire bundles, in accordance with the Accomplishment Instructions of Boeing Special Attention Service Bulletin 737-33-1146, dated November 2, 2011 (for Model 737-600, -700, -700C, -800, -900, and -900ER series airplanes), except as provided by paragraph (i) of this AD; or Boeing Special Attention Service Bulletin 737-33-1149, dated April 13, 2012 (for Model 737-300, -400, and -500 series airplanes).

(h) Concurrent Installation

For airplanes identified in Boeing Special Attention Service Bulletin 737-33-1149, dated April 13, 2012: Prior to or concurrently with the actions required by paragraph (g) of this AD, install wingtips and tail strobe lights, in accordance with the Accomplishment Instructions of the applicable service bulletin specified in paragraph (h)(1), (h)(2), or (h)(3) of this AD:

(1) For Group 6 airplanes identified in Boeing Special Attention Service Bulletin 737-33-1149, dated April 13, 2012: Use Boeing Service Bulletin 737-33-1076, dated September 22, 1988.

(2) For Group 7 airplanes identified in Boeing Special Attention Service Bulletin 737-33-1149, dated April 13, 2012: Use Boeing Service Bulletin 737-33-1078, dated November 3, 1988.

(3) For Group 5 airplanes identified in Boeing Special Attention Service Bulletin 737-33-1149, dated April 13, 2012: Use Boeing Service Bulletin 737-33-1111, dated August 29, 1996.

(i) Exception to Service Bulletin Specifications

This paragraph clarifies the airplane groups and configurations identified in Boeing Special Attention Service Bulletin 737-33-1146, dated November 2, 2011. Group 1, Config 1, comprises line number (L/N) 1-1198 inclusive. Group 1, Config 2, comprises L/N 1199-3060 inclusive.

(j) Alternative Methods of Compliance (AMOCs)

(1) The Manager, Seattle Aircraft Certification Office (ACO), FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the ACO, send it to the attention of the person identified in the Related Information section of this AD. Information may be e-mailed to: 9-ANM-Seattle-ACO-AMOC-Requests@faa.gov.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

(3) An AMOC that provides an acceptable level of safety may be used for any repair required by this AD if it is approved by the Boeing Commercial Airplanes Organization Designation Authorization (ODA) that has been authorized by the Manager, Seattle ACO, to make those findings. For a repair method to be approved, the repair must meet the certification basis of the airplane, and the approval must specifically refer to this AD.

(k) Related Information

(1) For more information about this AD, contact Marie Hogestad, Aerospace Engineer, Systems and Equipment Branch, FAA, ANM-130S, Seattle Aircraft Certification Office, 1601 Lind Avenue SW., Renton, Washington 98057-3356; phone: (425) 917-6418; fax: (425) 917-6590; e-mail: marie.hogestad@faa.gov.

(2) For service information identified in this AD, contact Boeing Commercial Airplanes, Attention: Data & Services Management, P. O. Box 3707, MC 2H-65, Seattle, WA 98124-2207; telephone 206-544-5000, extension 1; fax 206-766-5680; Internet <https://www.myboeingfleet.com>. You may review copies of the referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, Washington 98057-3356. For information on the availability of this material at the FAA, call 425-227-1221.

Issued in Renton, Washington, on August 24, 2012.

Ali Bahrami,
Manager,
Transport Airplane Directorate,
Aircraft Certification Service.

[FR Doc. 2012-21928 Filed 09/05/2012 at 8:45 am; Publication Date: 09/06/2012]